

sequentially recording an extremely large number of hologram elements. For providing a practically useful picture recording device used for producing a holographic stereogram, the recording medium for hologram needs to be transferred quickly during fabrication of the holographic stereogram. Therefore, means for holding and transferring the recording medium for hologram needs to be such a device in which not only the recording medium for hologram can be transferred quickly, but also no vibrations of the recording medium for hologram are allowed after completion and halting of the recording medium for hologram.--

Please replace the paragraph beginning on page 5, line 9, with the following rewritten paragraph:

--For producing a transmission type hologram in which a three-dimensional image is reproduced by the light transmitted through the recording medium, a recording medium for hologram 311 is bounded to a surface 310a of a light inlet block 310 formed of a glass plate or a synthetic resin plate of a suitable thickness, as shown in Fig.2. At this time, the recording medium for hologram 311 is bonded via an index matching liquid 312 to the light inlet block 310. An object light beam from an object 313 is illuminated from an other surface 310b of the light inlet block 310 towards the recording medium for hologram 311, while a reference light beam 315 is illuminated from an end face 310c of the light inlet block 310 towards the recording medium for hologram 311. This completes a transmission type edge-lit hologram.--

Please replace the paragraph beginning on page 7, line 20, with the following rewritten paragraph:

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--Moreover, if desired to assure a braid angle of visibility angle in the up-and-down direction in reproducing a holographic stereogram, a one-dimensional diffusion plate for diffusing the object light beam in a one-dimensional in-plane direction is desirably provided in the vicinity of the recording medium for hologram on the object light beam incident side. However, with the transmission type recording in which a light incident block needs to be arranged towards the object light beam incident side, it becomes to array this one-dimensional diffusion plate. Consequently, it has hitherto not been stereogram as a transmission type stereogram.--
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Please replace the paragraph beginning on page 9, line 19, with the following rewritten paragraph:

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--The optical component contacted with the recording medium for hologram via liquid is preferably a set of a one-dimensional diffusion plate and a louver film arranged on the object light incident side. For example, the optical component, comprised of the set of the one-dimensional diffusion plate and the louver film, is thrust, during recording on the recording medium for hologram, against the recording medium for hologram placed under pre-set tension. The one-dimensional diffusion plate performs the role of slightly diffusing the object light during recording in a one-dimensional direction for maintaining a broad angle of visibility in the up-and-down direction for scattering noise components ascribable to, for example, the optical system. On the other hand, the louver film prevents the reference light from

being reflected by, for example, the above-mentioned one-dimensional diffusion plate to be re-incident on the recording medium for hologram after passing through the recording medium for hologram.--

Please replace the paragraph beginning on page 11, line 4, with the following rewritten paragraph:

--For recording by the edge-lit system, the light inlet block can be contacted with the recording medium for hologram from the object light incident side or from the reference light incident side. However, even in case of recording by the edge-lit system, the one-dimensional diffusion plate and the louver film are preferably arranged in a contact area with the recording medium for hologram. In this case, the one-dimensional diffusion plate and the louver film are arranged on the object light inlet side, while the light inlet block is arranged on the reference light incident side of the recording medium for hologram. The light inlet block and the recording medium for hologram are contacted with each other via a liquid. If, in the following description, it is necessary to clarify the fact that the light inlet block is arranged on the reference light incident side., the light inlet block is termed a reference light inlet block. If the reference light inlet block is contacted with the recording medium for hologram the liquid interposed therebetween is preferably an index matching liquid responsible for index matching between the recording medium for hologram and the reference light inlet block.--

Please replace the paragraph beginning on page 39, line 7, with the following rewritten paragraph:

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--Downstream of the UV lamp 47, the recording medium for hologram 19 is heated by the heat roll 48. This increases the refractive index modulation factor of the photopolymer layer 19b for fixing the recorded image.--

Please replace the paragraph beginning on page 47, line 25, with the following rewritten paragraph:

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--Downstream of the UV lamp 47, the recording medium for hologram 19 is heated by the heat roll 48. This increases the refractive index modulation factor of the photopolymer layer 19b for fixing the recorded image.--

Please replace the paragraph beginning on page 52, line 23, with the following rewritten paragraph:

AS
--For reproducing a holographic stereogram as the reflection type, a reproduced image can be usually obtained even if the white light is used as the reproducing illumination because the stereogram has a higher wavelength selectivity. Conversely, for regenerating a holographic stereogram as the reflection type, it becomes difficult to reproduce the holographic stereogram with the white light because the wavelength selectivity becomes weaker than the holographic stereogram is reproduced as the reflection type. Therefore, if a holographic stereogram is reproduced as the transmission type, a light source with a higher color purity is preferably used as a reproducing light source. Specifically, if a LED emitting the light of high color purity is used as a reproducing light source, it becomes possible to obtain a clear reproduced image. The LED also has merits that it is closer in nature to a point light source and hence is effective to prevent

blurring of the reproduced image due to spreading of the light source, and that it scarcely generates heat.--

Please replace the paragraph beginning on page 54, line 11, with the following rewritten paragraph:

--During recording by the edge-lit system, the reference light beam falls at an acute angle on the surface of the recording medium for hologram 19. Thus it is a frequent occurrence that this reference light beam be totally reflected on an interface between the reference light inlet block 52 and the recording medium for hologram 19 or irregularities on the surface of the recording photopolymer layer 19b of the recording medium for hologram 19 be presented on the image as stripes looking like wooden grains. It is therefore required of the liquid interposed between the recording medium for hologram 19 and the reference light inlet block 52 to achieve index matching between the recording medium for hologram 19 and the reference light inlet block 52. That is, the above conditions need to be selected so that no total reflection occurs on the interface between the reference light inlet block 52 and the recording medium for hologram 19 and so that the intensity reflectance (s-components) on each interface is reduced.--

Please replace the paragraph beginning on page 58, line 11, with the following rewritten paragraph:

--It may be said that, for preventing total reflection on the respective interfaces and for sufficiently reducing the intensity reflectance for satisfying the condition for prevention of total reflection given by the above equations (7) and (8), it suffices to have the liquid 56 with the refractive index n_m

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satisfying the above equations (120 and (13) interposed between the reference light inlet block 52 and the recording medium for hologram 19.--

Please replace the paragraph beginning on page 59, line 25, with the following rewritten paragraph:

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--Since the above equation (17) satisfies the above equation (15) which is in condition for preventing total reflection, it becomes possible to prevent total reflection occurring on the interfaces to suppress the intensity reflectance to a sufficiently small value is a liquid having the refractive index n_m in meeting with the equation (17) is used as the liquid 56 interposed between the reference light inlet block 52 and the recording medium for hologram 19.--

Please replace the paragraph beginning on page 60, line 7, with the following rewritten paragraph:

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--If the reference light beam 55 is not incident at an acute angle on the surface of the recording medium for hologram 19, total reflection inherently is less liable to occur, while the intensity reflectance is also small, so that the condition required of the liquid 66 interposed between the reference light inlet block 52 and the recording medium for hologram 19 become extremely moderate. Therefore most of known organic solvents become usable as the liquid 56 satisfying the conditions for the refractive index 56.--

Please replace the paragraph beginning on page 60, line 17, with the following rewritten paragraph:

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--In the foregoing, it is assumed that the reference light inlet block 42 is contacted via liquid 56 with the recording

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medium for hologram 19, as shown in Fig.14, even in cases wherein the reference light beam 55 need not fall at an acute angle to the surface of the recording medium for hologram 19. However, in the first embodiment, since it is not only the reference light inlet block 52 but also the optical component 46, made of the one-dimensional diffusion plate 44 and the louver film 45, that are contacted via liquid 56 with the recording medium for hologram 19, there is produced certain deviation in the range of n_m due to the difference in refractive index between the reference light inlet block 52 and the optical component 46.--

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Please replace the paragraph beginning on page 74, line 14, with the following rewritten paragraph:

~~The [light inlet block 137A] light inlet block 137A is used for routing the reference light to the recording medium for hologram 130. The reference light is incident on one end face of the light inlet block 147A. This light inlet block is supported by first thrusting roll 155A and a second thrusting roll 155B arranged on the object light incident on the reference light incident side. The first thrusting roll 155A and the second thrusting roll 155B are fixed while the third thrusting roll 155V is movable in the fore-and-aft direction as indicated by arrow d in Fig.22. The recording medium for hologram 130 is passed through a space between the first thrusting roll 155A and the light inlet block 130 and into a space between the second thrusting roll 155B and the light inlet block 130. In this space, the third thrusting roll 155C is moved as indicated by the arrow d in Fig.22 and exerts a pressure against the light inlet block 137A against the first thrusting roll 155A and the second thrusting roll 155B. In this manner, the recording medium for hologram 130 and the light inlet block 137A are supported with the recording medium for hologram 130 being pressed against the light inlet block 130.--~~